

Composite Risk Management



Basic Combat Training Version
13 February 2007

Composite Risk Management (CRM)



Terminal Learning Objective

- **Action**
 - Apply the CRM process to individual and team risk decisions
- **Condition**
 - Given a situation requiring a decision, on or off duty
- **Standard**
 - Apply the CRM process per FM 5-19



Loss

FY 2006 ARMY MILITARY FATALITIES

Total: 1036

Combat, 497, 48%

Accident, 243, 23%

Other , 296, 29%

 ***Other: Medical, Suicide, Criminal & Undetermined.**

Data Sources: USACRC RMIS, Preliminary Loss Reports, AFIP, and HRC

The Composite Risk Management (CRM) Process



Composite Risk Management (CRM)



Guiding Principles of CRM

- Integrate CRM into all phases of missions and operations.
- Make risk decisions at the appropriate level.
- Accept no unnecessary risk.
- Apply the process cyclically and continuously.
- Do not be risk averse. Identify and control the hazards; complete the mission.



Identify Hazards

- A hazard is an actual or potential condition, situation, or event that can result in:
 - Injury, illness, or death of personnel
 - Damage, loss, or destruction of equipment and property
 - Degradation of capabilities or mission failure
- Hazards are found in ALL environments, missions, and activities
- Every Soldier is a Sensor



1 Identify Hazards



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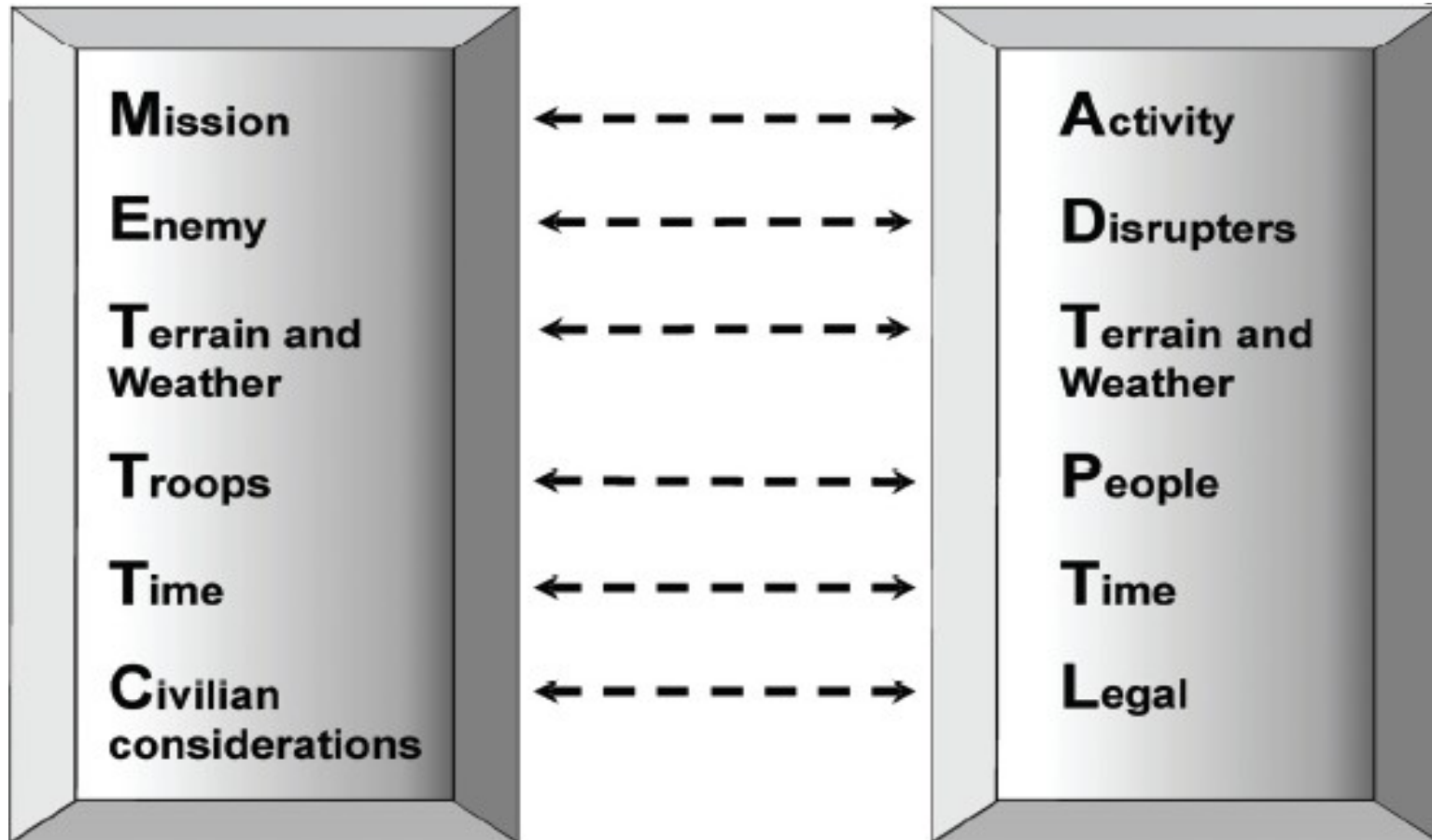


How are Hazards Identified?

- Experience
- Historical data
- Intuitive analysis
- Judgment
- Standards
- Brainstorming
- Decision Models
 - METT-TC
 - ADTPTL

Leading Hazards		
Combat		Other
IED Small Arms Close Combat VBIED Mortars Rocket Propelled Grenades		Medical <ul style="list-style-type: none"> - Cancer - Heart Disease Suicide Criminal Undetermined/Unknown
Accident		
POV <ul style="list-style-type: none"> • Excessive Speed • Fatigue • Distractions • No Seat Belts • Lack of Skill • Road and Traffic Conditions • Weather • Other drivers 	Motorcycle <ul style="list-style-type: none"> • Motorcycle capabilities and limitations • Rider capabilities and limitations • Road and Traffic Conditions • Other drivers • Low visibility to other drivers • Lack of motorcycle stability • Low crashworthiness 	<ul style="list-style-type: none"> • Army Motor Vehicles <ul style="list-style-type: none"> - Excessive Speed - Poor Driver Skills - Following too close - Rollover characteristics • Personal Injury hazards <ul style="list-style-type: none"> - Fall and trip hazards - Drowning hazards - Weapons handling - Pedestrian hazards • Aircraft hazards • Army Combat Vehicles hazards • Fire and Explosion hazards

METT-TC & ADTPTL



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Assess Hazards

- **Probability**
- **Severity**
- **Risk Level**



Probability

- Probability is the likelihood of an event.
- For CRM, there are five levels of probability:
 - Frequent
 - Likely
 - Occasional
 - Seldom
 - Unlikely



Severity

- Severity is expressed in terms of the degree to which an incident will impact combat power, mission capability, or readiness.
- There are four levels of severity used in CRM:
 - **Catastrophic**
 - **Critical**
 - **Marginal**
 - **Negligible**



FM 5-19

Specify the Risk Level

- Extremely High – Mission failure is likely
- High – Mission degraded; partially complete; below standards
- Moderate – Mission complete, but below standards
- Low – Little or no negative impact on mission

RISK ASSESSMENT MATRIX						
		Probability				
Severity		Frequent A	Likely B	Occasional C	Seldom D	Unlikely E
Catastrophic	I	E	E	H	H	M
Critical	II	E	H	H	M	L
Marginal	III	H	M	M	L	L
Negligible	IV	M	L	L	L	L
E – Extremely High		H – High		M – Moderate		L – Low

Develop Controls & Make Decisions

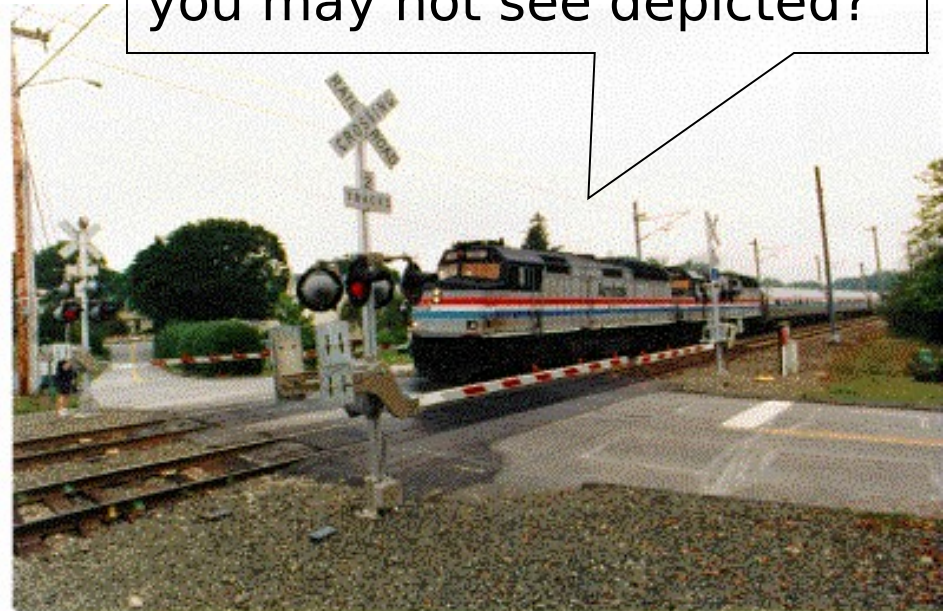
- Controls reduce or eliminate hazards, which may result in reduced risk level
- In developing controls, consider the reason for the hazard (cause vs. symptom)
- Effective controls must be suitable, feasible, and acceptable; they're no good if they can't be implemented.
- Effective controls specify who, what, where, when, and how



Typical Categories of Controls

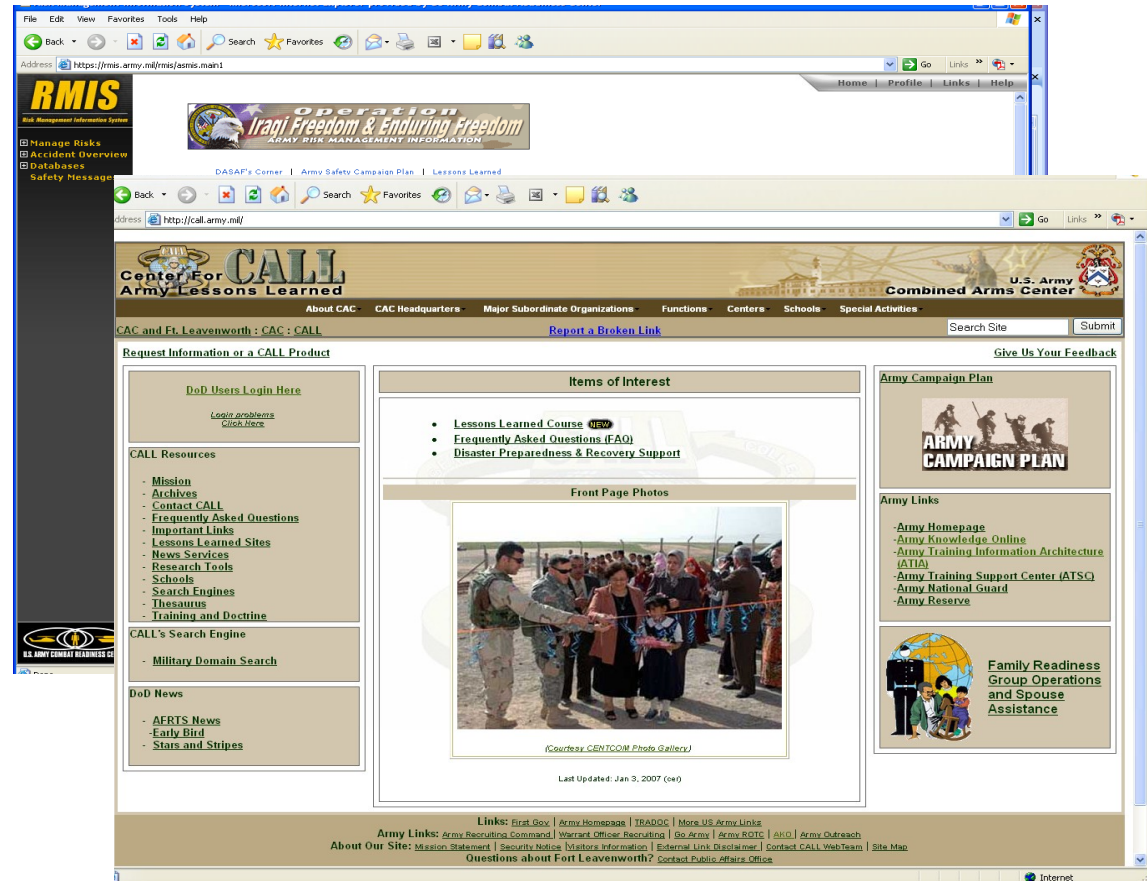
- Educational Controls
 - Training
 - Battle Drills
 - Briefings
- Physical Controls
 - Barriers
 - Signs
 - Guards
- Avoidance/Elimination Controls
 - Selecting a different route
 - EOD removal and disposal of unexploded ordnance

How many risk reducing controls can you identify?
Are there certain controls you may not see depicted?



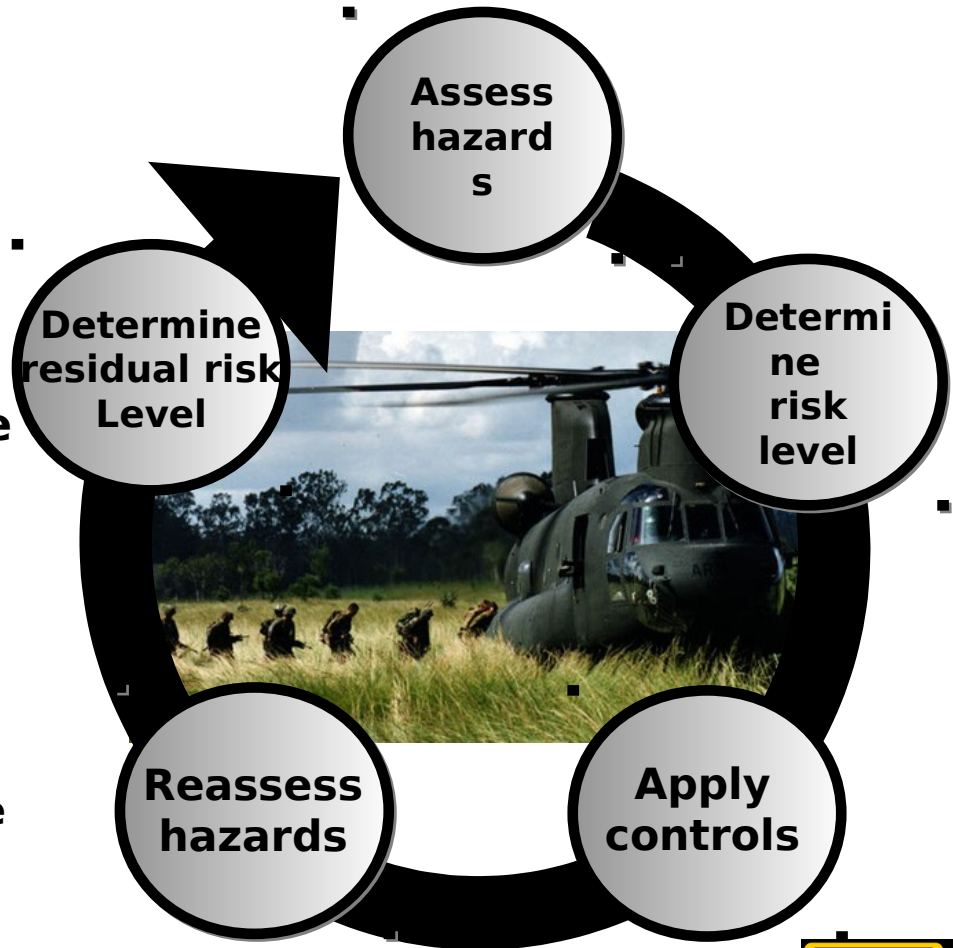
Sources of Controls

- Sources that can provide or identify possible control measures:
 - Lessons-learned
 - RMIS
 - AARs
 - Personal experience



Reassess Risk

- **Apply controls**
- **Reassess hazards**
- **Determine residual risk for each hazard**
- **Residual risk should never be higher than the initial risk.**
- **Determine overall mission or activity risk, which based on**
 - The hazard with the highest risk level, or
 - The number and type of hazards, which may make the overall risk higher than the risk of any single hazard



Make Risk Decisions

- Make informed risk decisions at the appropriate level of command or leadership
 - On duty: follow SOP or orders
 - Off duty: make informed personal risk decisions
- What level of risk is acceptable?
- Weigh potential loss against potential gain



Implement Controls

Controls must be

- Integrated into SOP, TTP, orders, briefings
- Converted into clear and simple execution orders
- Communicated and coordinated among all concerned
- Explained through
 - Graphics
 - Drills & rehearsals
 - Training
 - Communications (voice or digits)



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Supervise and Evaluate

- Supervision and evaluation must occur throughout all phases of any operation or activity.
- Consider the following:
 - Tools and Techniques
 - After-Action Reviews
 - Lessons Learned
 - Tracking and Documenting the CRM Process



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Evaluate

The evaluation process serves to accomplish the following:

- Identify any new hazards
- Assess controls:
 - Communication
 - Implementation
 - Effectiveness
- Assess accuracy of residual risk
Was the hazard really low risk?
- Ensure compliance with the guiding principles of CRM
 - Did we fully integrate CRM into the mission or activity?
 - Were risk decisions made at the right level?
 - Were unnecessary risks accepted?
 - Did we apply CRM cyclically and continuously?
 - Did we apply CRM without being risk averse?



Individual Responsibility

- Maintain situational awareness of all risk
 - Identify and report hazards
 - During mission execution, *you* become the primary source of identifying hazards
- Follow risk guidance from leaders and commanders
- Be self-disciplined in conduct on and off-duty
- Know and use CRM tools available through your leaders, FM 5-19, and the USACRC website
- Use CRM as a life skill in all activities, on and off-duty



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CRM and You

- CRM On and Off Duty
- CRM and POV Operations (#1 killer of Soldiers)
- Personal Injury
- Negligent Weapon Discharge
- HMMWV Rollovers (#1 killer during AMV operations)



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Conclusion

- I apply CRM to everything I do, both on and off-duty.
- Who should make this risk decision? Me, or someone with more authority or experience?
- Self discipline? Yes. Unnecessary risk? No.
- CRM doesn't start and stop; it's continuous.
- Avoid risk? No. Manage it? Yes. Complete the mission? Absolutely!

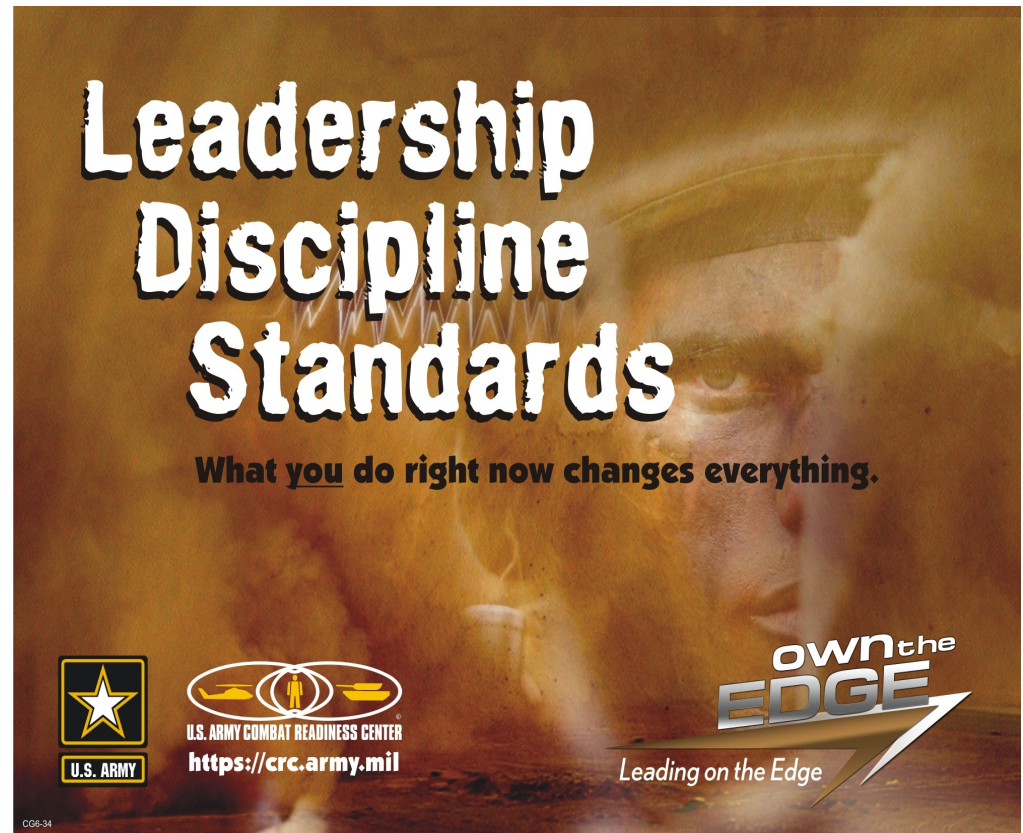


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